

GATCTATGCAGAAAATCTACACTATTTTGAATCACTTCTCCAAAGGCCAGAAAATCAGCCTGTTAGCTGCAGTTGC
TATGAATGTGAAACACAGAAAGAAAAGAGACTACATTTGGGGTTTCTTATTTAGGGCAGGTGGGGCAAACACAAA
TGACTTTAGCTGACTAGCTGAATAGTTTTACTACCAATCATGAAATAATCTTTATATATTTTCCCTTTTTAGGAC
CCTTCAATCACTGTTGTTCCAATCAGTGAGTAAAGTTTTTCTTAACAAGTCGAAATCCTGAGCTGAGGATC

GATCTATGCAGAAAATCTACACTATTTTGAATCACTTCTCCAAAGGCCAGAAAATCAGCCTGTTAGCTGCAGTTGC
TATGAATGTGAAACACAGAAAGAAAAGAGACTACATTTGGGGTTTCTTATTTAGGGCAGGTGGGGCAAACACAAA
TGACTTTAGCTGACTAGCTGAATAGTTTTACTACCAATCATGAAATAATCTTTATATATTTTCCCTTTTTAGGAC
CCTTCAATCACTGTTGTTCCAATCAGTGAGTAAAGTTTTTCTTAACAAGTCGAAATCCTGAGCTGAGGATC

FIG. 2A

5'	AGCCG	GCG	11	GGT	GGC	20	CGG	GGA	GGG	29	GTG	AGC	AGG	38	GTG	CCG	CTG	47	GCT	GCT	GGG	56	GTC
	P	A	Q	G	G	R	G	G	V	S	R	V	P	L	A	A	G	V					
	TGC	AGG	65	TCA	CCG	AGT	CCC	CAG	GAG	83	AGG	GGA	CTC	CTA	92	AGA	AGC	101	CAC	CTG	CCT	110	GTG
	C	R	S	P	S	P	Q	E	R	G	L	L	R	S	H	L	P	V					
	TTT	ACC	119	CGG	CAG	CGA	GCG	CGC	AGG	137	CCC	CCG	CGA	ACT	146	CCT	GGC	155	AGC	GCT	CAG	164	GAA
	F	T	R	Q	R	A	R	R	P	P	R	T	P	G	S	A	Q	E					
	AGG	CCG	173	TTG	CGC	CTC	GCG	AAG	GAA	191	AGA	GAG	CCG	TTG	200	ACC	ATG	209	GTT	GCA	ACT	218	GGC
	R	P	L	R	L	A	K	E	T	E	P	L	T	M	V	A	T	G					
	AGT	TTG	227	AGC	AGC	AAG	AAC	CCG	GCC	245	AGC	ATT	TCA	GAA	254	TTG	CTG	263	GAC	TGT	GGC	272	TAT
	S	L	S	S	K	N	P	A	S	I	S	E	L	L	D	C	G	Y					
	CAC	CCA	281	GAG	AGC	CTG	CTA	AGT	GAT	299	TTT	GAC	TAC	TGG	GAT	TAT	GTT	317	GTT	CCT	GAA	326	
	H	P	E	S	L	L	S	D	F	D	Y	W	D	Y	V	V	P	E					
	CCC	AAC	335	CTC	AAC	GAG	GTA	ATA	TTT	353	GAG	GAA	TCA	ACT	TGC	CAG	AAT	371	TTG	GTT	AAA	380	
	P	N	L	N	E	V	I	F	E	E	S	T	C	Q	N	L	V	K					
	ATG	CTG	389	GAG	AAC	TGT	CTG	TCC	AAA	407	TCA	AAG	CAA	ACT	AAA	CTT	GGT	425	TGC	TCA	AAG	434	
	M	L	E	N	C	L	S	K	S	K	Q	T	K	L	G	C	S	K					
	GTC	CTT	443	GTC	CCT	GAG	AAA	CTG	ACG	461	CAG	AGA	ATT	GCT	CAA	GAT	GTC	479	CTG	CGG	CTT	488	
	V	L	V	P	E	K	L	T	Q	R	I	A	Q	D	V	L	R	L					
	TCC	TCA	497	ACG	GAG	CCC	TGC	GGC	TTG	515	CGA	GGT	TGT	GTT	ATG	CAC	GTG	533	AAC	TTG	GAA	542	
	S	S	T	E	P	C	G	L	R	G	C	V	M	H	V	N	L	E					
	ATT	GAA	551	AAT	GTA	TGT	AAA	AAG	CTG	569	GAT	AGG	ATT	GTG	TGT	GAT	TCT	587	AGC	GTC	GTA	596	
	I	E	N	V	C	K	K	L	D	R	I	V	C	D	S	S	V	V					
	CCT	ACT	605	TTT	GAG	CTT	ACA	CTT	GTG	623	TTT	AAG	CAG	GAG	AAC	TGC	TCA	641	TGG	ACT	AGC	650	
	P	T	F	E	L	T	L	V	F	K	Q	E	N	C	S	W	T	S					

FIG. 2B

659				668				677				686				695				704			
TTC	AGG	GAC	TTT	TTC	TTT	AGT	AGA	GGT	CGC	TTC	TCC	TCT	GGT	TTC	AGG	AGA	ACT						
F	R	D	F	F	F	S	R	G	R	F	S	S	G	F	R R T								
713				722				731				740				749				758			
CTG	ATC	CTC	AGC	TCA	GGA	TTT	CGA	CTT	GTT	AAG	AAA	AAA	CTT	TAC	TCA	CTG	ATT						
L I L S S G F R L V K K K L																	Y	S	L	I			
767				776				785				794				803				812			
GGA	ACA	ACA	GTG	ATT	GAA	GGG	TCC	TAA	AAA	GGG	AAA	ATA	TAT	AAA	GAT	TAT	TTC						
G	T	T	V	I	E	G	S	*															
821				830				839				848				857				866			
ATG	ATT	GGG	TAG	TAA	AAC	TAT	TCA	GCT	AGT	CAG	CTA	AAG	TCA	TTT	GTA	GTT	TGC						
875				884				893				902				911				920			
CCC	ACC	TGC	CCT	AAA	TAA	GAA	ACC	CCA	AAT	GTA	GTC	TCT	TTT	CTT	TCT	GTG	TTT						
929				938				947				956				965				974			
CAC	ATT	CAT	AGC	AAC	TGC	AGC	TAA	CAG	GCT	GAT	TTT	CTG	GCC	TTT	GGA	GAA	GTG						
983				992				1001				1010				1019				1028			
ATT	CAA	AAT	AGT	GTA	GAT	TTT	CTG	CAT	AGA	TCC	CAT	TTT	TGT	ACA	GAA	TTG	AAT						
1037				1046				1055				1064				1073				1082			
GGG	ATG	GAA	TAG	GTA	AGC	AAA	AGT	AGA	AGC	CCA	TTT	GAG	TTT	TAC	ATT	TGA	TTC						
1091				1100				1109				1118				1127				1136			
CAC	AAT	TTG	GTT	TCA	GGT	AGG	CTT	GGT	GAT	AGA	CTA	TAT	AAA	CCA	GAT	TTG	CCT						
1145				1154				1163				1172				1181				1190			
ATT	TTG	ATT	TTC	ATA	TGG	CTT	TTT	TTT	CTG	TAA	GTT	TTC	AGA	GGA	TTT	TTT	AAA						
1199				1208				1217				1226				1235				1244			
TCA	CAG	AAT	CAT	ACT	AAA	TGA	TAT	TTA	GCC	TAT	CAA	AAC	TTC	CAA	AAG	CCC	ACA						
1253				1262				1271				1280				1289				1298			
CCA	CCA	GTT	CCT	GAC	TCA	AAT	TTG	AAG	GGT	TTT	TAG	ACA	GGA	GGG	TAG	GAT	TAA						
1307				1316				1325				1334				1343				1352			
GTA	GGT	GAG	TTT	AAT	TAA	AGC	TTA	ACC	CTA	GGT	AAG	AGT	AAA	TGA	GAA	ATA	TTA						
1361				1370				1379				1388				1397				1406			
CGG	CAA	TAA	TGG	AAC	TGC	TTC	ACT	GTT	TCT	TGG	TGA	CTT	CCT	CAC	TCT	AAT	GTT						
1415				1424				1433				1442				1451				1460			
TTA	AAG	AGG	CAA	CAA	AAG	CTT	ATG	GTG	CCA	TTT	CAG	TAA	CCA	CGG	TGT	TGT	TTT						
1469				1478				1487				1496				1505				1514			
AGA	TGC	CTT	TAT	AAG	CTC	AGT	TTC	CCT	TGT	TCT	TAA	GTG	TTG	AAT	ACT	GTC	TTT						
1523				1532				1541				1550				1559				1568			
AAA	CTA	GAA	AAA	TGC	AAA	ATA	TTG	AAC	TGA	TAT	TTC	TGT	GTG	TAG	TTT	ATT	ACT						
1577				1586				1595				1604				1613				1622			
CTT	CCA	TTG	AGT	GAA	TGA	TGA	ATA	CCT	GTG	AGG	ATA	GGA	AAT	GAG	TTC	TGA	GAT						
1631				1640				1649				1658				1667				1676			
CTA	GTC	CCT	CTC	TGA	TTC	ACT	TAG	TAA	TCT	ATC	CTC	TTT	TCA	GTA	TTA	CAT	GTG						
1685				1694				1703				1712				1721				1730			

AAA AAA AAA AAA AAA A 3'

SECRET

SECRET

Fig. 4A

Query: 6 SLSSKNPASISELLDCGYHPESLLSDFDYWDYV-VPEPNLNEVIFEESTCQNLVKMLENC 64
SL S + S+ + G+ PE D Y D V +P+ L +E C NL+++L+
Sbjct: 45 SLESSDCESLDSS-NSGFGPEE---DSSYLDGVSLPDFELLSDPEDEHLCANLMQLLQES 100

Query: 65 LSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPCLRGCVMHVNLEIENVCKKLDRI 124
LS+++ +++L+P +L ++ +++LRL+ +EPCGLRG ++ V +E C + ++
Sbjct: 101 LSQARLGSRPARLLMPSQLLSQVGKELLRLAYSEPCGLRGALLDVCVEQGKSCHSVAQL 160

Query: 125 VCDSSVPTFELTLVFKQENCSTXXXXXXXXXXXX-XXXXTLILSSGFRLVKKKLYS 183
D S+VPTF+LTLV + ++ W +L LS+GFR++KKKLYS
Sbjct: 161 ALDPSLVPTFQLTLVLRRLDSRLWPKIQGLLSSANSSSLVPGYSQSLTLSTGFRVIKKKLYS 220

FIG. 4B

Query: 6 SLSSKNPASISELLDCGYHPESLLSDFDYWDYV-VPEPNLNEVIFEESTCQNLVKMLENC 64
SL S + S+ + G+ PE D Y D V +P+ L +E C NL+++L+
Sbjct: 48 SLESSDCESLDSS-NSGFGPEE---DTAYLDGVSLPDFELLSDPEDEHLCANLMQLLQES 103

Query: 65 LSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPCLRGCVMHVNLEIENVCKKLDRI 124
L++++ . +++L+P +L ++ +++LRL+ +EPCGLRG ++ V +E C + ++
Sbjct: 104 LAQARLGSRPARLLMPSQLVSQVGKELLRLAYSEPCGLRGALLDVCVEQGKSCHSVGQL 163

Query: 125 VCDSSVPTFELTLVFKQENCSTXXXXXXXXXXXX-XXXXXXTLILSSGFRLVKKKLYS 183
D S+VPTF+LTLV + ++ W +L LS+GFR++KKKLYS
Sbjct: 164 ALDPSLVPTFQLTLVLRRLDSRLWPKIQGLFSSANSPFLPGFSQSLTLSTGFRVIKKKLYS 223

FIG. 5A

Query: 1 MVATGSLSSKNPASISELLDCGYHPESLLSDFDYWDYVVPENLNEVIFEESTCQNLVKM 60
 MVATGSLSSKNPASISELLD GYHP SLLSDFDYWDYVVPENLNEV+FEE+TCQNLVKM
 Sbjct: 1 MVATGSLSSKNPASISELLDGGYHPGSLLSDFDYWDYVVPENLNEVFEETTCQNLVKM 60

Query: 61 LENCLSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKK 120
 LENCLS+SKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKK
 Sbjct: 61 LENCLSRSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKK 120

Query: 121 LDRIVCDSSVPTFELTLVFKQENCSTSLKDDFFSRGRFSSGLKRTLILSSGFRLVKKK 180
 LDRIVCD+SVVPTFELTLVFKQE+C WTSKDDFFSRGRFSSGLKRTLILSSG+RLVKKK
 Sbjct: 121 LDRIVCDASVVPTFELTLVFKQESCPWTSLKDDFFSRGRFSSGLKRTLILSSGYRLVKKK 180

Query: 181 LYSLIGHTTVIE 191
 LYSLIGHTTVIE
 Sbjct: 181 LYSLIGHTTVIE 191

FIG. 5B

Query: 43 NLNEVIFEESTCQNLVKMLENCLSKSKQTKLGCSKVLVPEKLTQRIAQDVLRLSSTEPGL 102
 NL++V S + L + L+ L +K+ L C++V +P LTQRIA +++R+S EPCG
 Sbjct: 162 NLDDV--SASAVRELSQQQLQAQLRDAKRRHLACTEVTLPNDLTQRIAAEIIRMSEREPCG 219

Query: 103 LRGCVMHVNLEIE-NVCKKLDIVCDSSVPTFELTLVFKQENCSTWXXXXXXXXXXXXX 161
 R C + + E E N K++ D V FEL L +Q+ W+
 Sbjct: 220 ERACTLFIEFESEPNKVKRIAYFKVDPDTSIFELYTLRQDKSGWS----SLVPQFIKN 275

Query: 162 XXXXTLILSSGFRLVKKKLYS 183
 T+ +S F L KKKLYS
 Sbjct: 276 LTRSNTINISPDFTLTKKKLYS 297

FIG. 5C

Query: 24 HPESLLSDFDYWDYVVPENLNEVIF---EESTCQNLVKML---ENCLSKSKQTKLGCS 76
 +P+ LSD+ W+Y VPE N ++F + L+KM N K L +
 Sbjct: 613 NPDVELSDYVMWEYNVPE---NTIVFSLHVNTLSRYKLLKMKSKNHNASEKQPDALLKTA 669

Query: 77 KVLVPEKLTQRIAQDVLRLSSTEPGLRGCMHVNLEIENVCKKLDIV 125
 ++++ TQ I DV +S+ PCGL + +N+ I+ + K++ I+
 Sbjct: 670 EIILVTD-TQTIVFDV--ISTVHPCGLNIIKKFYQYLKINIPIDVLPNKIEWII 720

Fig. 6A

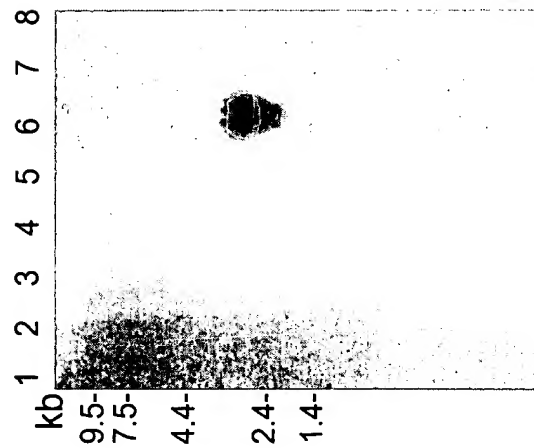


Fig. 6B

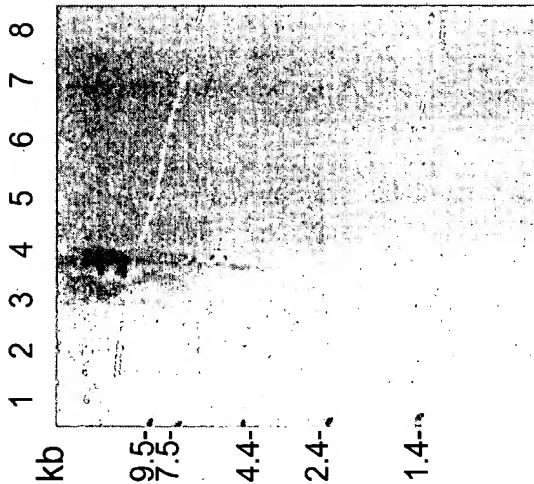


Fig. 6C

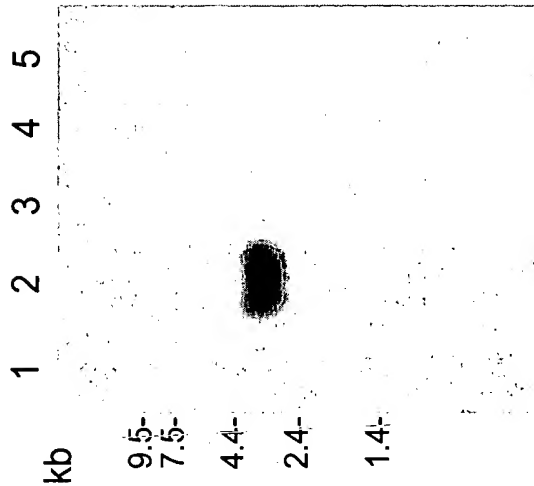
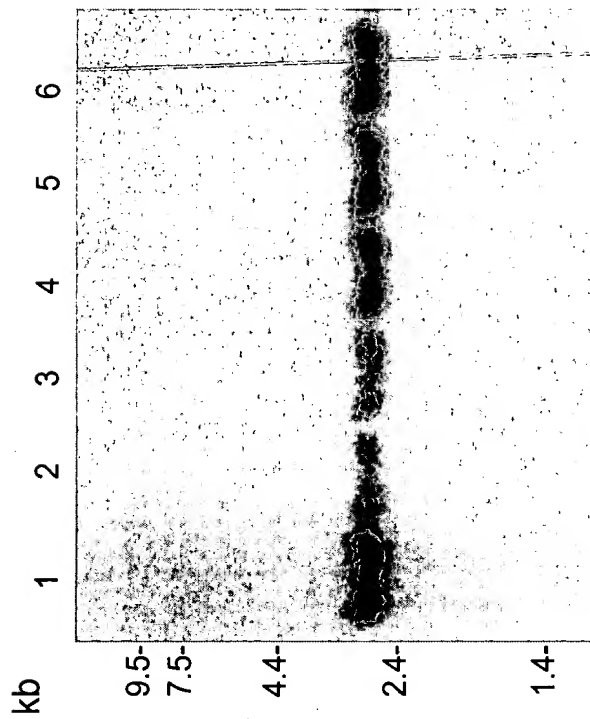


FIG. 7



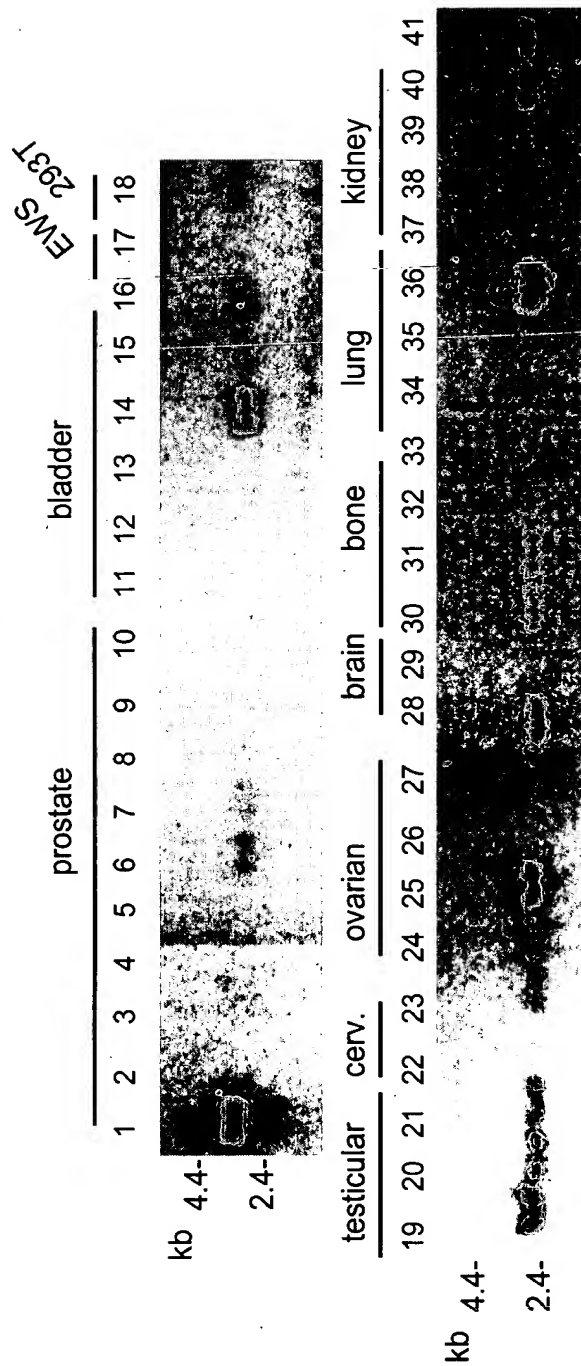
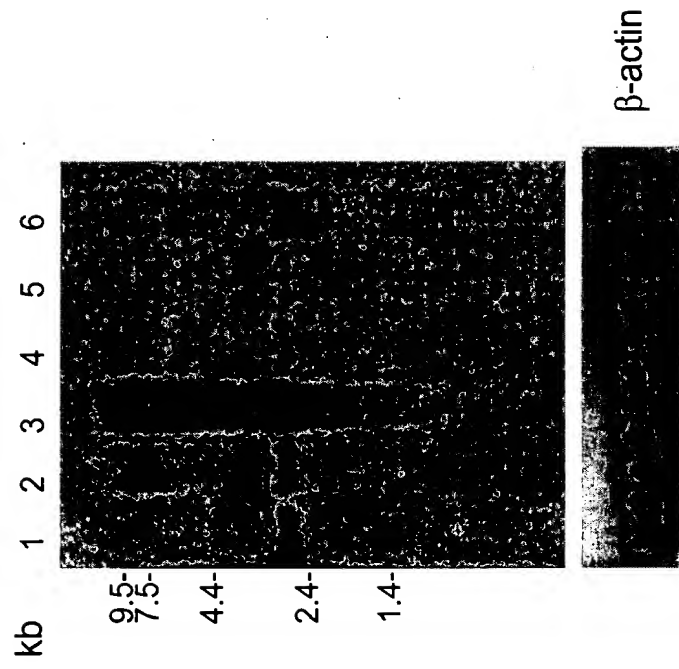


FIG. 9



Patented Feb. 23, 1960

FIG. 10

1 2 3 4 5

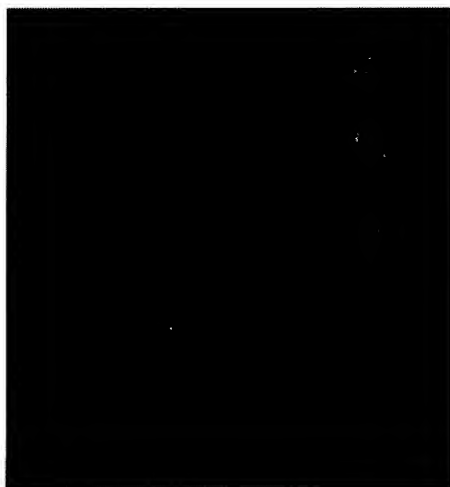


FIG. 11

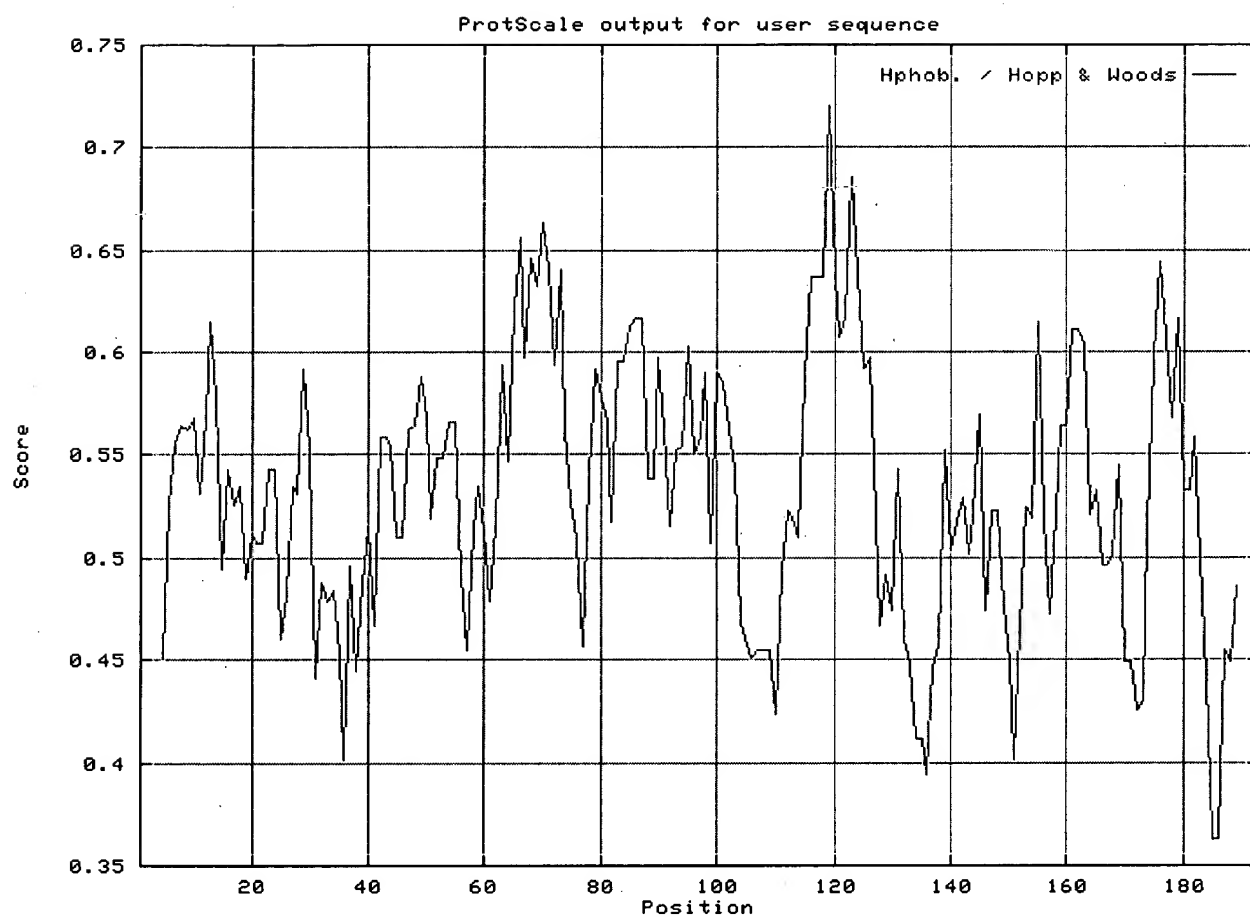
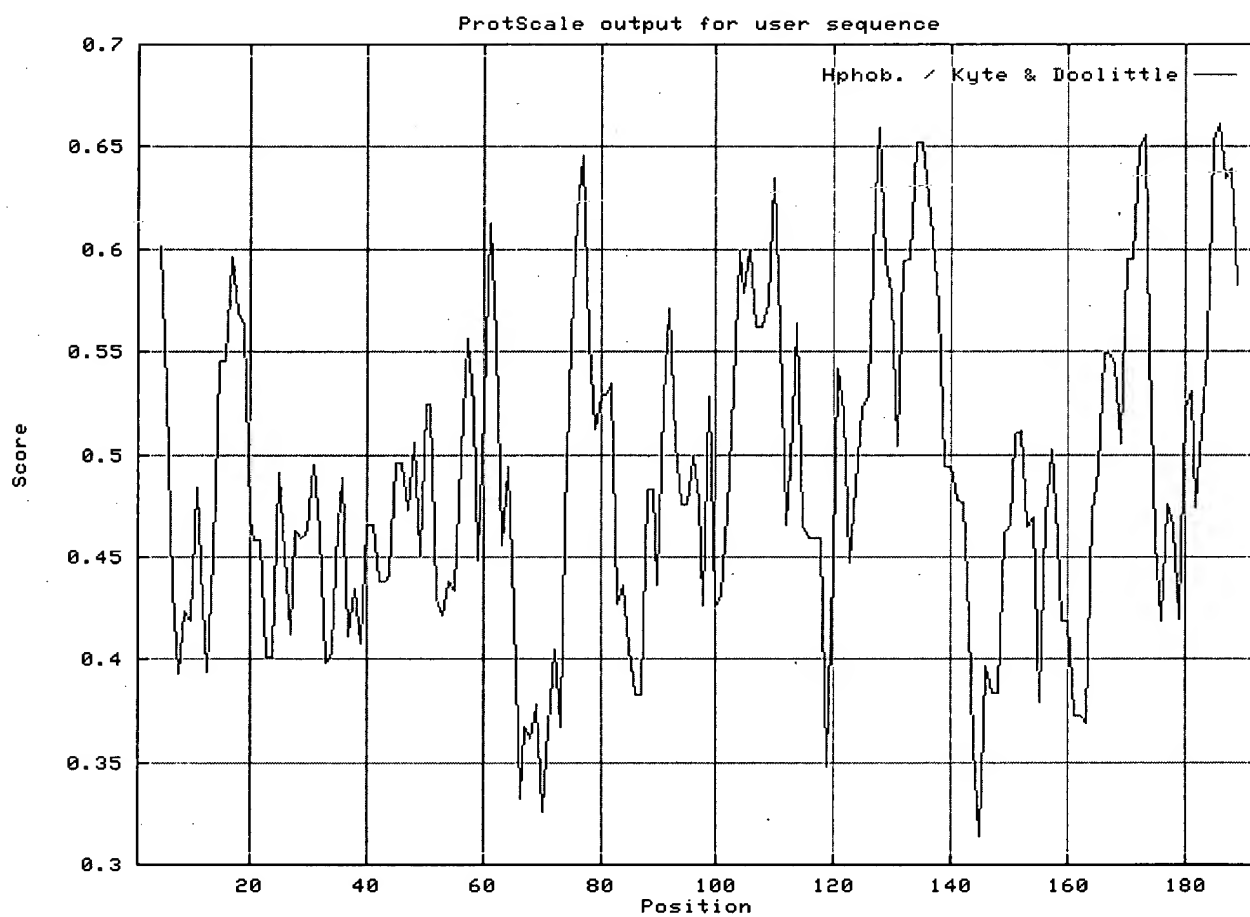


FIG. 12



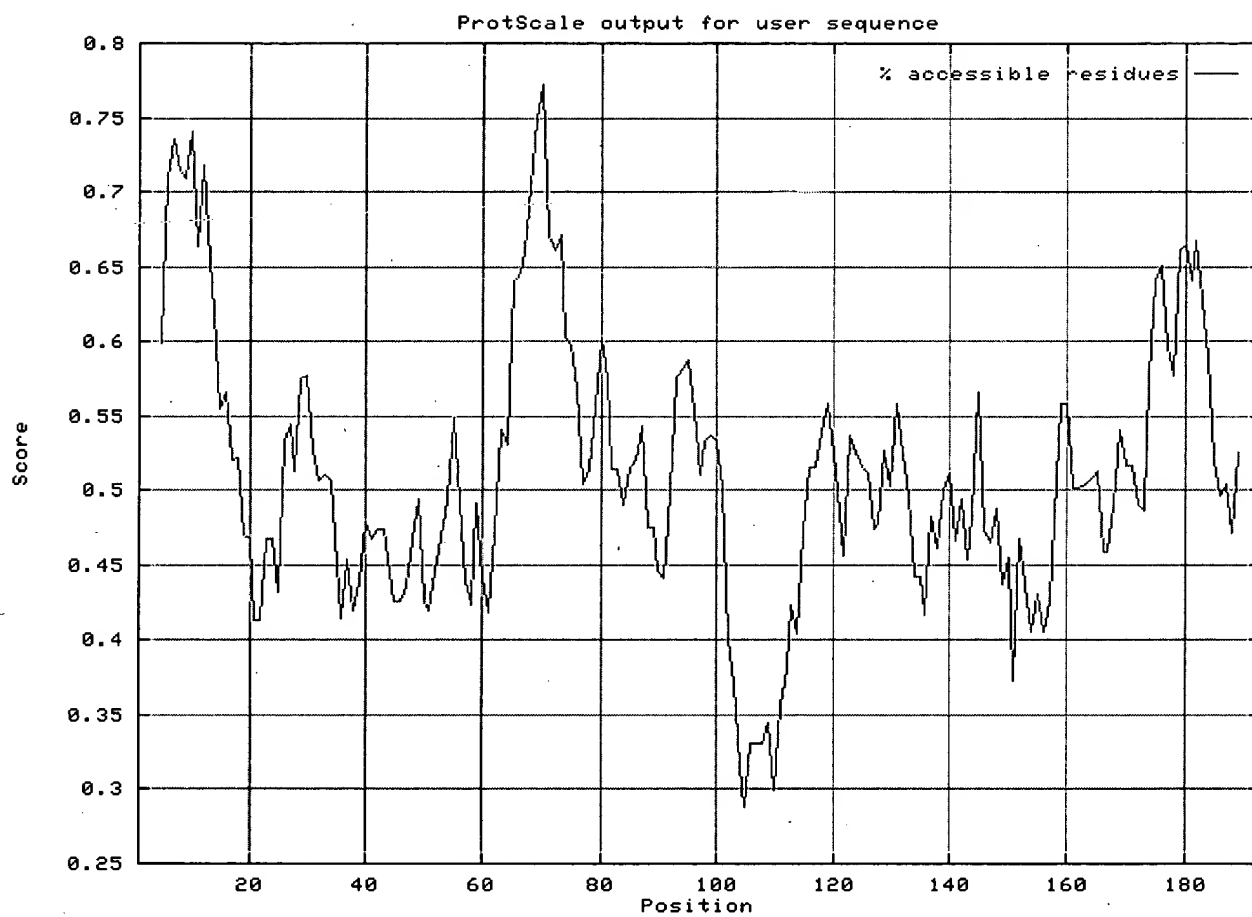
[illegible]

FIG. 14

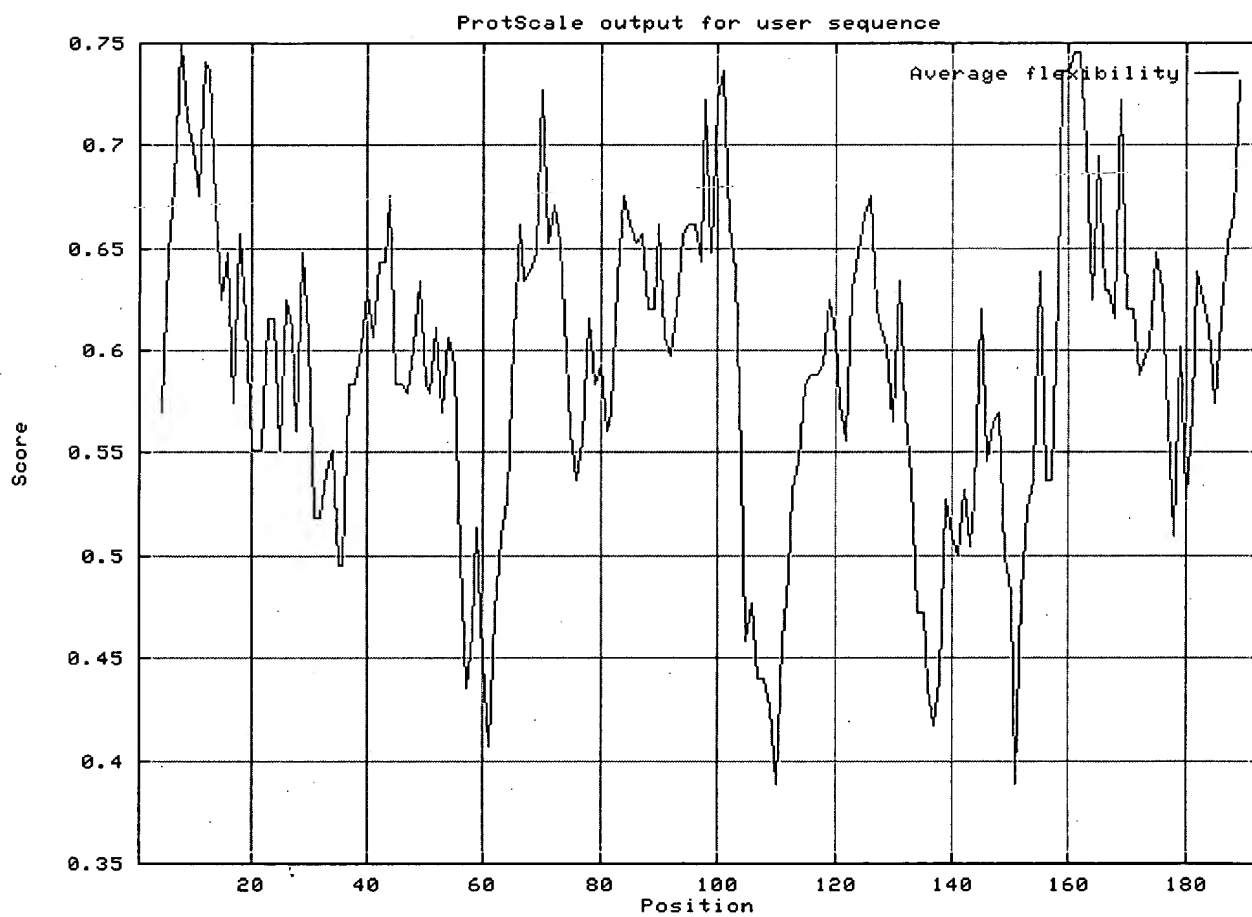


FIG. 15

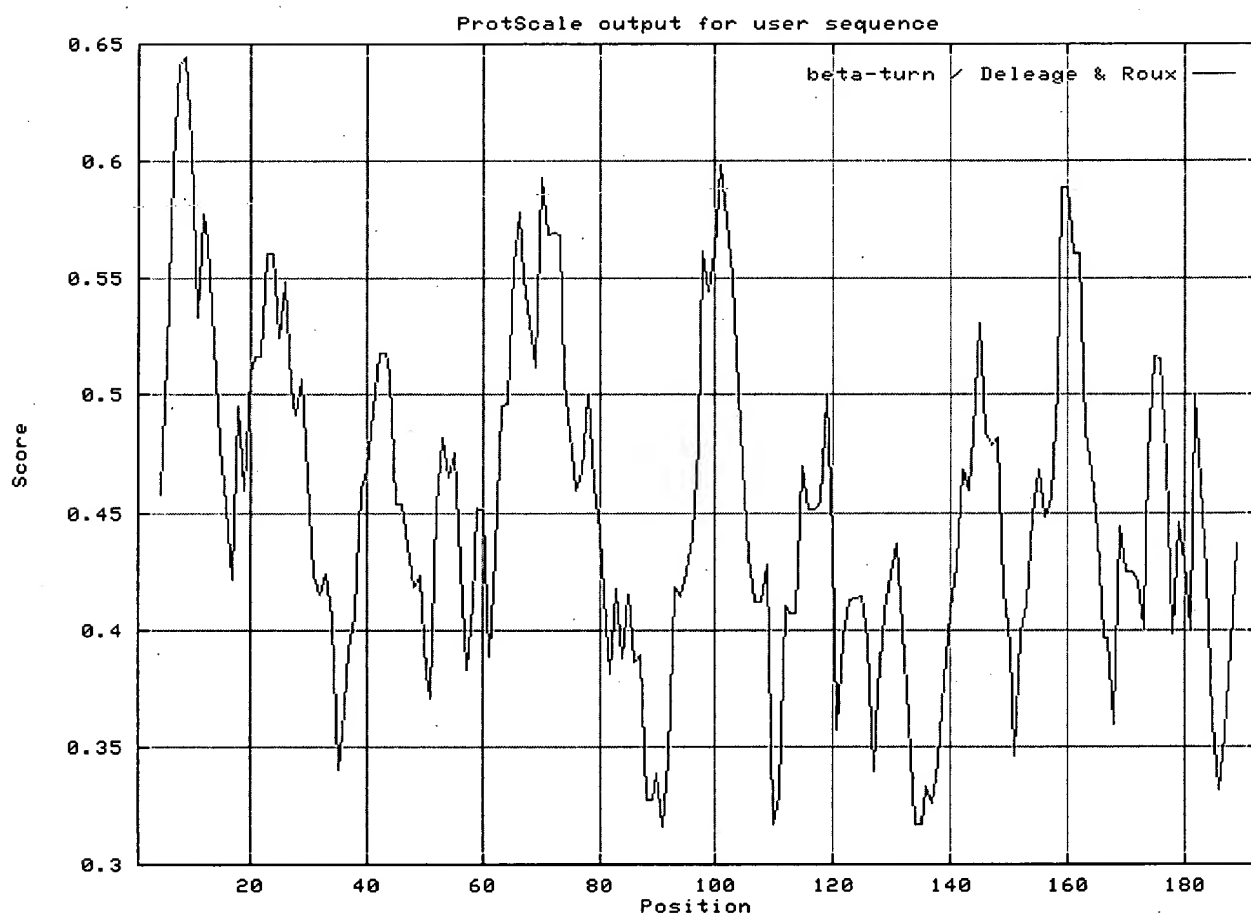


Fig. 16

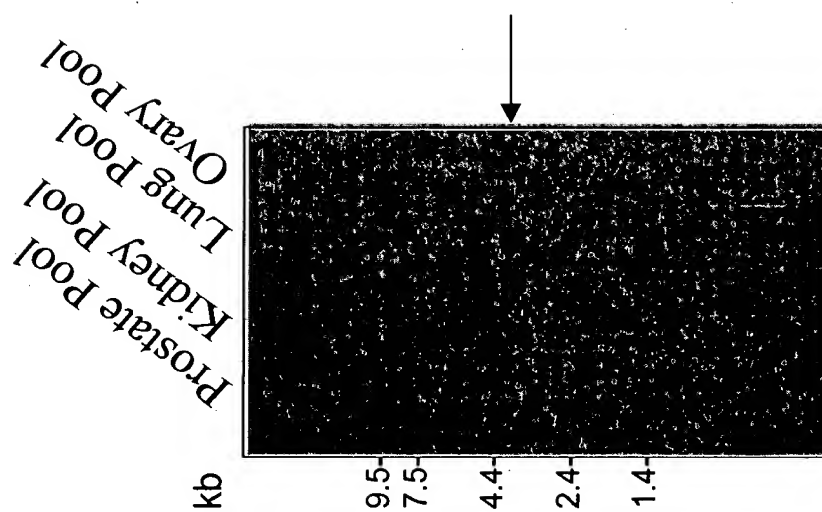


Fig. 17

